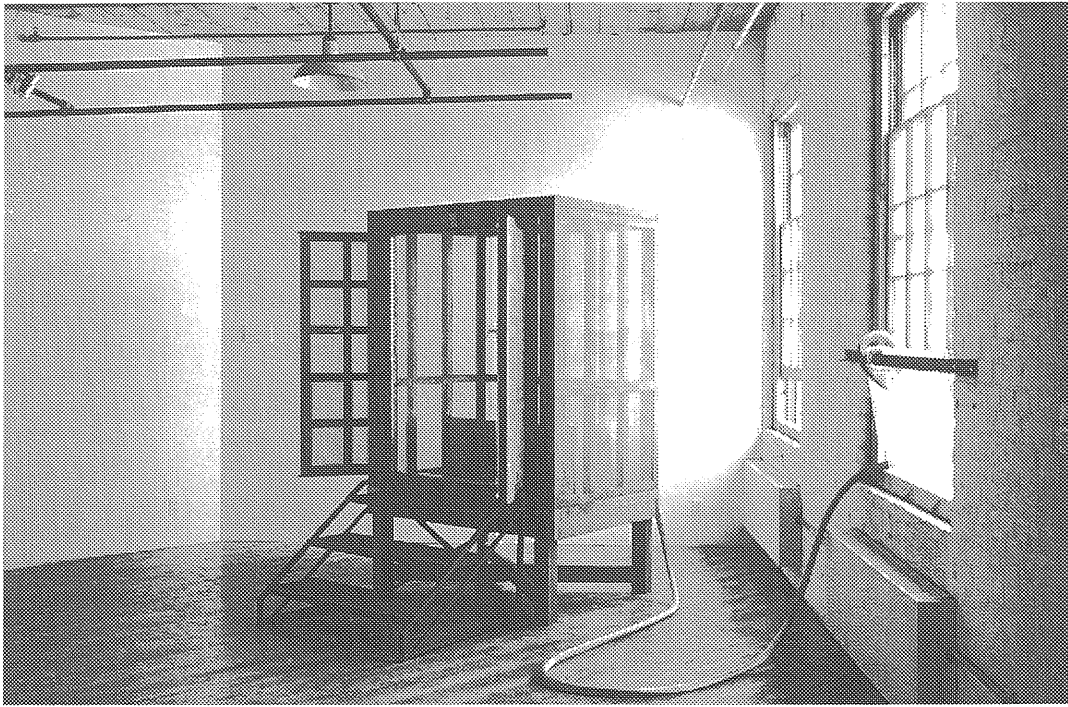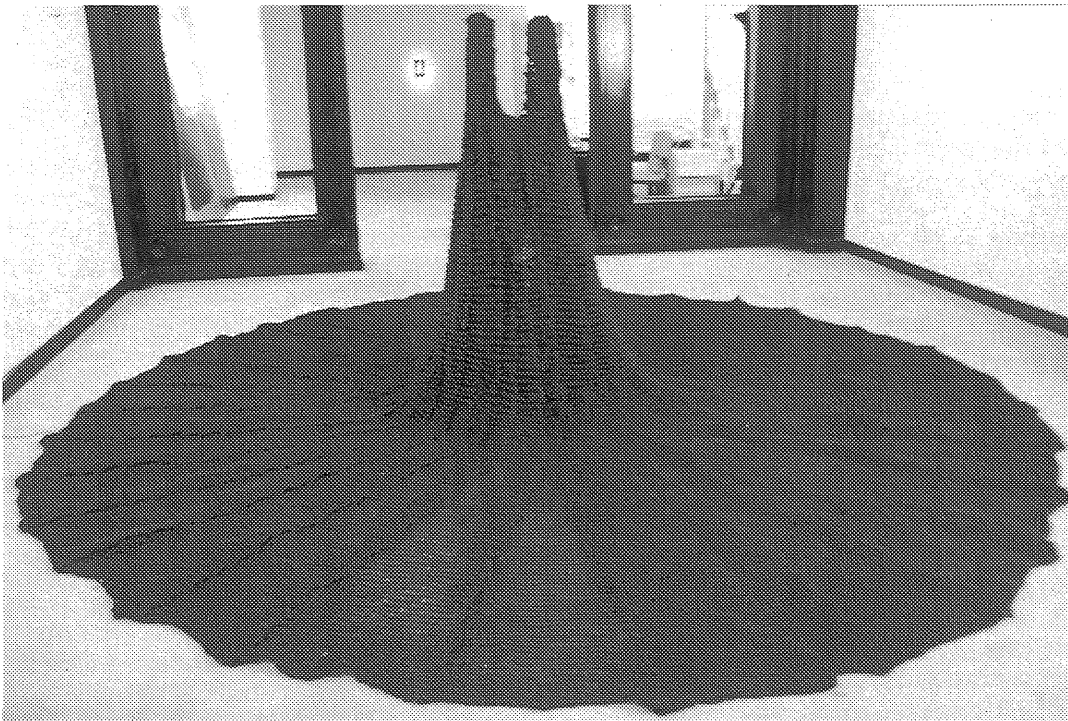*Curiosity Cabinet
At the End of the Millennium
(1995)
by Catherine Richards*

On the Threshold

*Para Observar el Mundo
a Una Cierta Distancia
(For Observing the World
from a Certain Distance)
1996–98; 160 x 400 x 400 cm.
by Maribel Domenech*

# of Perception...

...We Cross the Edge of Representation

From the Editor

Paul Hertz

Multimedia Applications Developer, IT; Adjunct Professor, Radio, TV & Film, Northwestern University

Et j'ai vu quelquefois ce que l'homme a cru voir

—Arthur Rimbaud, *Le bateau Ivre*[1]

An object is whatever it becomes under the impulse of the situation at hand.

—Jerome Rothenberg,
Technicians of the Sacred[2]

In art as in science, boundary conditions serve to define the realm of discourse. By probing for limits we discover the dimensions of the fields of experience and of expression. When we reach the edge of perception we must construct new instruments and methods of representation. At the limits of representation we must reinvent perception. We learn to see the unseen and describe the indescribable. How else can we continue to construct the world and make it new?

New Experience Requires New Expression

In the arts, the limits of expression and experience arise from the materials we work with and from the cultures within which we operate. Technology has provided us with new materials and the possibility of creating new experiences, but it's up to us to invest them with meaning. New media often outpace the development of codes of representation, the culturally distributed systems by which we are able to interpret or construct meaning in works of art. Artists working with technology are obliged to create new lexicons of representation, with the attendant risk that what they attempt to say becomes opaque to all but a few informed souls.

Even When Form Itself Appears Exhausted

In modern culture, from which we are perhaps just emerging, the creation of new codes of representation in the arts has been carried on by the avant-garde, an institution now regarded with melancholia and suspicion. Its quest for new forms appears exhausted and its revolutionary purpose too easily subverted by a consumer society where newness emerges as the principal sign of desire. Despite these formal and ethical constraints, the will to create new language persists, whether we work with new media or with old. When the main lode gives out, we mine the edges, but the impulse to seek new language lies deeper than formal elaboration. As Rimbaud knew: *l'amour est a réinventer*[3]—every generation must reinvent its

forms, emotions, and symbols. Like language itself, cultural codes of interpretation are living matter, constantly changing. If formal progress appears chimerical, it may simply mean that our culture is at the point of shifting from a linear model to a cyclic model of historical time. In either model, art has the potential to act as an agent of renewal, forging new language for new lives and new experiences.

Art Lays Down A Visionary System Prior to Symbol-Making

In *Technicians of the Sacred,* an anthology of poetry from traditional societies around the world, Jerome Rothenberg makes the point that so-called "primitive" societies are in fact our contemporaries, possessed of languages at least as developed and nuanced as our own, of great cosmological depth and rhetorical inventiveness. "Primitive means complex," he points out. Drawing analogies between Beat poetry readings, happenings and installation art in the 1950s and '60s and ritual language in other societies, he discovers that these "avant-garde" activities represent a return to ritual practices shared by many cultures.

Where the Spectator Acts as a Ritual Participant

In Rothenberg's view, words, rhythm and objects caught in the flux of performance point to an underlying unity beyond the mask of form. Because performance always depends on articulated form, composed of elements, it is inherently disjointed and can only point to but not manifest an underlying unity. Beyond the surface meaning each element bears, it acts as a part that represents the whole, a metonymy. Even as the ritual proceeds, the interpretation of its elements changes. It's up to the spectator to bind disparities together by reading the work.

Filling in the Gaps of Representation

How to read a work becomes the central issue for its completion: the spectator casts about for clues embedded in the work and its context. Ritual provides one kind of reading. In *Digital Mantras* composer Steven Holtzman suggests another. He argues that "visual art, music, mathematics, mantra, numbers, and form are all investigations of structure,"[4] whose essential nature is linguistic. Composing isomorphic structure in disparate modalities becomes a

Visual Thinking is From Venus, Linear Thinking is From Mars

Wednesday, January 6 @ 7:30PM
McBean Theater
The Exploratorium • 3601 Lyon St. • San Francisco
(Contact: Trudy Myrrh Reagan, (650) 856-9593.)

Are the feminine qualities of collaboration and seeing whole systems ascending in our culture simply because more women are in public life? Leonard Shlain, author of *The Alphabet Versus The Goddess*, thinks there is more to it. According to him, we are emerging from an epoch thousands of years long in which literacy was not only monopolized by males, but which promoted thinking on the left side of the brain. This promoted linear, doctrinaire thought and the mind-set for inquisitions. Our era, marked by photography, television, and now, the Internet and multimedia, promotes visual thinking and is literally rewiring our brains. He will explore the historical background for his unusual thesis in the first part of the program. Then, Mary Stieglitz, a specialist in "visual thinking" at Iowa State University, will show myriad examples of the influence of visual technologies on modern culture.

PROGRAM:

Leonard Shlain will speak on his new book, *The Alphabet Versus The Goddess: The Conflict Between Word and Image*, which proposes that the invention of literacy rewired the brains of the people who learned this skill, shifting their culture into a linear, sequential mode that elevated masculine values over feminine ones. Cultures that became literate denigrated images, goddesses, and women's rights, and instituted patriarchy and misogyny. Shlain is the author of *Art & Physics*, a best-seller in 1992, as well as Chief of Laparoscopic Surgery at California Pacific Medical Center in San Francisco.

Mary Stieglitz, Head of the Department of Art and Design at Iowa State University and a specialist in "visual literacy," will show its development in the 19th and 20th century in her slide talk, "Full Circle." She will consider the influence of the unique qualities of camera vision on visual thinking, particularly as it changed our viewpoint of our world, both technically and philosophically. The current environment of digital imaging technologies, she feels, offers the same potential for change. The department that she heads consists of over 60 faculty and approximately 1,000 students in programs of fine art and professional design, so the changes that are occurring in the visual arts are her primary concern.

Exploratorium's free night. Come and see the Exploratorium exhibit, "Memory Matters."

Free, open to the public, and wheelchair accessible.

Ylem Tour of Tech Museum

Saturday, February 6, 3–5PM
Park & Market Streets • San Jose
(408) 795–6100 • <*www.thetech.org*>

Tour the just-opened Tech Museum in San Jose with Ylem member **Robert Grimm,** who is Chair of its Programs and Exhibits Committee. Hear the inside story on how the state-of-the-art interactive displays were built. Those who wish can eat supper out together afterwards.

Note: If you want to see the IMAX film, "Everest," shows start on the hour. To see the 2:00 pm show you should arrive at least 15 minutes earlier, more if you have to buy a ticket there. Advance tickets are advisable by phone or web site.

Charge: museum entrance, $8. (IMAX film is $8 separately, but discounted with museum admission, so tell them if you are doing both). RSVP to Trudy, (650) 856-9593. If she gets your phone number or email, she can contact you with any change of plans.

Getting there: From 101 or 280, take 87 to downtown San Jose. After taking Santa Clara or Park exit from 87, take Santa Clara east to Market, turn right, go to Park across Market from the Fairmont Hotel.

On CalTrain, go to Tamien Station (south of San Jose-Diridon Station), take lightrail to downtown (runs every 10 minutes), get off at "Convention Center" stop on West San Carlos, walk one block on Market to Park, across Market from the Fairmont Hotel.

②

Busses run from Fremont BART Station to downtown San Jose. The IMAX shows start on the hour. To see the 2:00 pm show you should arrive at least 15 minutes earlier, more if you have to buy a ticket there.

Organizing an Ylem Exhibition

If you organize a show with several Ylem artists where the art is related to either technology or science, and is presented and promoted in a professional manner, then Ylem can help you by sending you information about Ylem to go in your publicity packets.

Contact:

Trudy Myrrh Reagan
967 Moreno
Palo Alto, CA 94303 USA
(415) 856-9593
<*trudymyrrh@aol.com*>

source of meaning. Holtzman sees formal systems as a potential vehicle for spiritual insight, leading us from surface appearances to deep structures and thence beyond structure to unity, Brahman. Where Rothenberg concentrates on the fluid semantics of ritual and performance art, Holtzman argues that the syntactic structures of art can be equally revealing (or mysterious) and sees digital media and computation as a domain where abstract structures may be freely moved from one medium to another. In art historical terms Rothenberg's viewpoint could be considered within Conceptualism, while Holtzman is advocating a Constructivist approach: the poet works with symbols and ideas in ordinary, representational language, while the musician works with structures and transformations in formal, abstract language. Both attempt to describe the ways in which we might think and feel by means of the non-linguistic material in hand—be it sound, gesture, color, or any other element we care to shape.

We Do Not Know Exactly What We Are Saying

Both Rothenberg and Holtzman direct their attention to language to derive a poetics of meaning or a poetics of structure that can direct the creation of a work composed for multiple sensory modes. Multi-modal art is sometimes referred to as synesthetic, though the neurological sense of the word is quite different from its application to the arts. Rimbaud (who was probably a synesthete with regard to colors and language) proposed another, riskier approach to escaping the strictures of ordinary language: *le dérèglement de tous les sens,* the derailing of all the senses[5]. Without going to quite the extremes that he did, we may nevertheless attempt to construct an art for generating new physical experiences, ones for which we have not yet produced an adequate language and (as in all art) do not know exactly what we are saying.

③

The Work Says More Than the Spectator Can Ask

In beginning my stint as a guest editor for the YLEM newsletter my original intention was to look for work which operated on the boundaries of the senses, working either at the threshold of perception or crossing over from one sensory mode to another. As I became acquainted with the work of various artists that seemed to fit my proposal, it became apparent that much of it was driven by the inadequacies of representation in a single mode. In a pedestrian sense, the work said more than I was asking. In a larger sense, this was precisely its power.

One of the artists whose work I am presenting here, Jack Ox, is a painter who works from musicological analysis of scores (notably a Bruckner symphony for one work, and Kurt Schwitters's *Ursonate* for another) to produce paintings which are in a sense translated performances of the score. What is striking about her technique is that it is not "painting to music" but proceeds from a painstaking extraction of structure from a score and the subsequent derivation of rules for developing the painting. In keeping with the representational traditions of painting, Ox incor-

porates images of historical and artistic significance to her sources into the work, but these too are selected, dissected, and arranged according to rules derived from the compositional process.

Some of the other artists are more concerned with exploring situations on the limits of sensory experience. To explore the range of the auditory spectrum where sound is felt rather than heard, Joe Reitzer designed a 10 x 10-foot platform with low frequency transducers beneath it. Sound events were controlled by CAVE virtual reality software, using positioning devices in a virtual 3D environment but dispensing with the video projection screens used as the walls of a CAVE. Much to his surprise, people used the floor to give each other deep tissue massage-they would lie on the floor while the person with the positioning device combed the space above the floor in order to collide with interesting "sound triggers" in the virtual but invisible 3D space. A work that began as a novel application of technology (a CAVE without walls where you can literally pluck music from the air) became a spontaneous social event. The fact that there were objects invisibly flowing by in different strata added to the game. Exhibited at SIGGRAPH 1997, the work, *Vibescape,* puzzled observers from a distance, who simply saw people lying on the floor for no apparent reason.

One work by Canadian artist Catherine Richards—*Cabinet of Curiosities at the End of the Millennium*—is a Faraday cage big enough for two people to sit in. In theory, at least, electromagnetic waves cannot penetrate the interior space of the cage, which is clad in copper wire and grounded by a large cable. In practice, the upper spectrum is collected by the copper wire forming a passive circuit: radio and TV waves (and some analogue cell phones) are caught by it rather than by the body. I sat in the cage in Montreal, where I met someone who assured me he had been there for hours and definitely felt calmer inside the cage than out. "In a sense," Richards points out, "the work is about absence." Richards' 1997 work *Charged Hearts* involves plasma discharges in glass hearts, activated by touch. In contrast to *Cabinet,* viewers are surrounded by an electromagnetic field. Picking up the hearts activates fields which power the discharges; these fields power up the wireless hearts, which begin to beat. An earlier work, *Spectral Bodies,* involves the use of vibrators to induce propioceptive illusions in peripheral limbs of persons who are interviewed as the illusions are induced. Typically the illusions consist of variations in the kinesthetic sense of scale, with arms or legs seeming to change their size or even to disappear. "Can you get me back?" asks one interviewee—and of course we can't go back, it's too late[6].

Sculptor Maribel Domenech's work seems in some ways to occupy the opposite pole from the *Cabinet of Curiosities.* An intense field of energies of indeterminate proportions penetrates and surrounds her work. She knits electrical cable into large basket-like garments that are intended as habitations. The garment/houses are powered and studded here and there with ultraviolet lights, audio speakers, and other devices. The process of the work involves photographing people wearing the garments instead of their normal

clothes. The grid of the garment is at once the source and the visible pattern of the invisible electromagnetic field. Themes of the barely visible and the invisible made visible recur in the black light illumination and the naked human bodies glimpsed through the meshes of the garments. Some of Domenech's 2D works involve superposition of X-ray images and photographs, again presenting us with the visible and invisible.

Thresholds, a multi-media performance created by painter Marlena Novak, cellist Frances-Marie Uitti and poet M. Stone-Richards (who writes under the pseudonym Michael Bancroft) provides a direct look at how performers in different media attempt to develop a common language in order to collaborate. Novak paints geometric abstractions in encaustic, in which number and proportion play a central role. Using computer graphics, she developed a series of animations of elementary geometrical shapes where the golden mean was applied both to spatial and temporal scales. In another instance she derived a numerical system from one of Bancroft's poems. Uitti in turn developed some of her performance from the time scales in the computer graphics.

My own work involves several processes, many of which center around the human activity of pattern making. One early stream of geometric patterns evolved into a card game, which lets me to add a social and theatrical dimension to my work. I adopt the persona of dysfunctional fortuneteller in small-scale performances or use a computer-based version of the cards to invite participants to post "messages for posterity." Encoded as a series of symmetry operations, the underlying structure of the patterns can become paintings, parametric spaces for musical composition, diagrams for an installation, or scores for theatrical performance. Like Ox, I can also regard the abstract structures as "containers" for symbolic or representational imagery, or create purely abstract compositions. In essence, I use the structures as a unifying rationale for heterogeneity.

All of these artists, it seems to me, are addressing the relations of representation and perception. Ox and I are concerned with the possibility of defining abstract structures that can be very mobile, manifesting themselves in multiple media. Domenech's and Richards's work develops through the tropes of poetry more than through the formalisms of analysis or notation. Both artists are dealing with effects at the edge or beyond the edge of perception and both seem to feel that they have bumped against the limits of what visual representation alone could carry. In Richards' words, "the point about exploring non-visual senses is that I use these as metaphoric experiential structures (...). I'm not looking for an 'effect' per se which it is, but as a way to move the spectator into a position where they can 'see' something which we often can't... working with both the physiological and the symbolic/metaphoric."[7] Reitzer's work depends more on serendipity, but it also requires careful structuring of the material and technology to set the stage for surprises. Novak's essay explains the process which artists in different media went through to provide a structural basis for their collaboration. While the geometric nature of her work seems to have aided this process, her investigation of the emotional potential of color provided another arena for collaboration on the symbolic level.

Viewing the work of these artists and others, we could speculate that there are at least two historical streams where we could seek the origins of "synesthetic" intermedia art: music and poetry. Twentieth century artists such as Klee and Kandinsky systematized the elements of visual art with a view towards composing pictures in the same sense that a musician composes music. Nearly a century earlier Charles Baudelaire spoke of color in musical terms and evolved a poetics of correspondences among the senses that functioned not as a source of abstract structures but of symbolic constellations. Musical intermedia emphasizes pattern and structure. It reveals the sensual delight we take in perceiving them, but also suggests that "deep structure" pertains to meaning beyond structure. Poetic intermedia begins with meaning, ritual and memory, and creates a structure in which different sensory modalities can play off one another. In both streams, juxtaposing systems results in lacunae and overlaps, for there are things we can or cannot say in each modality — but this is the dynamic of intermedia and not its flaw. At the limits of their possibilities, structure and meaning, form and symbol together produce art, but they do so only through the creative will of each person who perceives them. As critic Malcolm Bowie said of Mallarmé, a poet whose sensibility often dwells within the gaps between the various systems that converge in a poem: "[...] the interaction of systems is a guarantee of mental creativity; co-present systems within a text deflect and disrupt each other and in so doing compel us to become producers and arbiters of meaning."[8] The final threshold of perception the artist seeks belongs to other people.

Paul Hertz
<paul-hertz@nwu.edu>
Chicago, 1998

1. Rimbaud, Arthur, *Poésies Complètes,* (Editions Gallimard, France, 1960).

2. Rothenberg, Jerome, editor, *Technicians of the Sacred,* 2nd edition (University of California Press, Berkeley, 1985), p xxvii.

3. Rimbaud, *Une Saison En Enfer: Vierge Folle.*

4. Holtzman, Steven R., *Digital Mantras* (The MIT Press, Cambridge, Massachusetts, 1994), p. 290.

5. Rimbaud, *Letter to Paul Demeny,* May 15, 1871, the so-called *lettre du voyant.* A more literal translation would be "the disordering of all the senses."

6. Richards, Catherine, paper presented in panel "Sublime and Impossible Bodies," SIGGRAPH 1998, Orlando, Florida.

7. Richards, Catherine, email correspondence with the author (August 30, 1998).

8. Bowie, Malcolm, *Mallarmé and the Art of Being Difficult* (Cambridge University Press, England, 1978), p. 89.

Knitting Existence

by Maribel Domenech

Experience is always knowledge, light and initiative.

> *Existing in the world means acting, but acting in such a way that in the final analysis, the aim of action is our very existence.*

—Emmanuel Levinas

To be naked is to be without words.

—Ogotemmeli

Knitting is like writing, connecting thoughts to produce discourse in material form. As you knit you become conscious of time, you can make it visible. The content of this simple action is duration itself. It is a slow process, the progression of life, experience, existence.

Life experience is reflected in the body, that dark habitat of our thoughts, desires, intimacy and senses which rise to the surface like tattoos on the skin. It is on the skin that the public and the private come to meet. Projecting images on the surface of the skin, X-rays or conceptual shapes which function as tattoos, you expose your inner self to the light. The frailty of the body, continually in flux, must be covered for protection. Knitting dresses is building shelters for survival, electrified fences to protect that private space.

Clothing is like a chair or a dwelling, a human construct designed to be occupied like a second skin accompanying us on our journey through the space of life. My intention is to create dresses like houses, made for the purpose of standing still, anchored in place, so as to contemplate the world, while remaining in contact with life-from a certain distance. My dresses are external structures designed to bring out internal experience. When the body inhabits the dress, the process is complete.

Each of these works uses 10,000 meters of electric cable and generates in its surroundings a strong field of visual and physical energy.

Para Observar el Mundo a Una Cierta Distancia
(For Observing the World from a Certain Distance)
1996–98; 160 x 400 x 400 cm. (Pictured on the cover)

The garment is knit with black electric cable. It looks like an island. It extends across the floor in such a way that its central part, its body, remains inaccessible. It bears a small black light tube in its interior, at the height of the genitals. In its fabric time, experience, energy and life are trapped. In its color: darkness, intimacy. In its form: identity. In its weave: writing, the word.

Como una Habitación Llena de Luz
(Like a Room Full of Light)
1998; 160 x 300 x 400 cm. (Pictured above)

The garment is knit from white electric cable. Akin to architecture, its dimensions are equal to an ordinary room of 300 x 400 cm., with white walls, like one in my house. I link garment to house as a space of privacy and protection where light resides as a metaphor of consciousness, energy and life. All human beings are like rooms filled with light, and we do not guard our knowledge, experience and wisdom within, but we communicate them, we launch them beyond ourselves by means of words and actions. For this reason many live wires reach out from the garment and expand into the space of the gallery where they end in small lights strewn about the floor. There are 47 light tubes, given that I have 47 years of life, experience, knowledge and energy in my interior.

<mdomenec@esc.upv.es>

Body Boundaries

by Catherine Richards

All my pieces explore the permeable boundary between the body and our computer technology: the destabilization of our current imaginative and physical sense of ourselves. For this reason the pieces put the 'spectator' at the center, on display, the site of instrumentation.

A confusion of the imaginary and the real is the reason I work with elements which can be read either way. The first two pieces use illusions of bodily presence, the last two explore the substructure of our technological environment, electromagnetism.

Curiosity Cabinet
At the End of the Millennium
(1995)
(Pictured on the cover)

Much of the attempt to reconstruct a new persona for ourselves in new media environments focuses on the meeting of body and machine: a cyborg state of half metal and half flesh. In the main stream technological, scientific and pop narratives the cyborg simply appropriates more machine power for the autonomous self.

In contrast, I see these electronic computer environments as irrevocably blurring the boundaries between body and machine and multiples of bodies and machines, thereby profoundly shifting any notion of the autonomous self. There are immense implications for our material bodies and our virtual, physic selves in these ambiguous environments. Not only do these states undermine our construction of autonomy, but we have not developed any other notion of subjectivity to take its place.

This work holds up the autonomous complete self as a kind of endangered species, a rare collectable on display for a moment. It is time when such a self is in fact under siege from our own media environments.
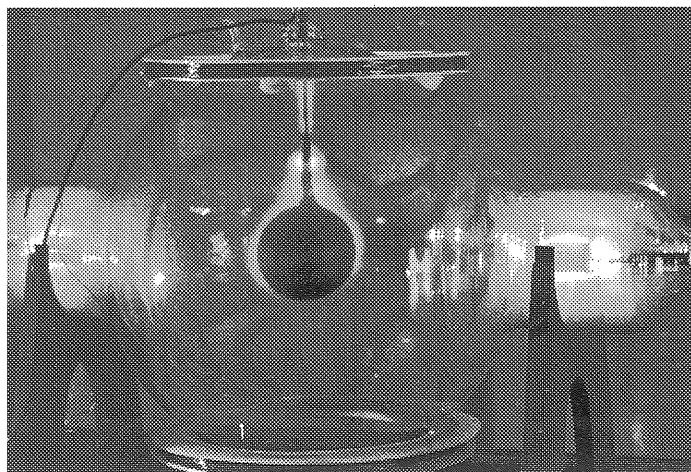
In what way can we be separate and autonomous from the media world? Rather than the world in the cabinet, it will be ourselves inside the cabinet. This is what *Curiosity Cabinet* does. The spectator/participant climbs inside the cabinet. Rather than our bodies the copper of the cabinet picks up the upper RF spectrum: TV, radio waves. The cabinet is now a 'safe' house, an impermeable skin from the electronic and magnetic sea.

Charged Hearts
1997

Our technological culture has created an environment of electromagnetic signals—pager, television, radio, computer, florescent lights, voltage lines, to name a few. As our technology becomes increasingly wireless the space around us is filling up. It is not limited by our body boundaries. We are already cyborgs: part flesh, part machines. We are already plugged in, all the time, systemically bonded.

The human heart, the symbolic seat of the emotions, is also one of the body's better known electromagnetic fields. The electromagnetic wave is the heartbeat itself.

(6)

> *"How can the parts of the human heart so quickly lose their lifelong mutual synchronization?... cases of electric shock or emotional shock among them— the triggering malfunction may have been tiny and transient, leaving no visible trace... beyond the heart's last motions..."*
>
> —p. 41, *When Time Breaks Down:* Arthur T. Winfree

Charged Hearts presents an external re creation of this situation of which we are all a part. In *Charged Hearts* we can hold the image of this condition in our hands.
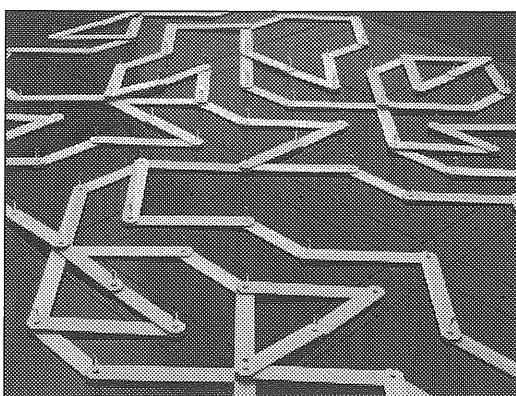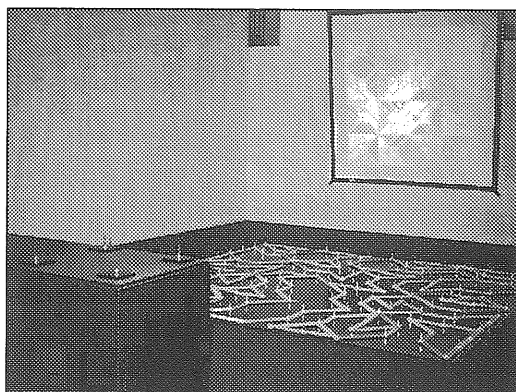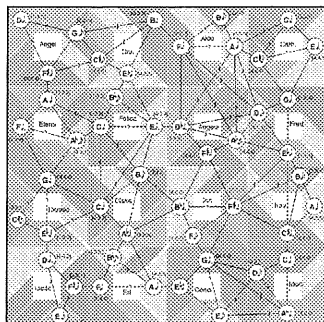
Richards: *Page 16*
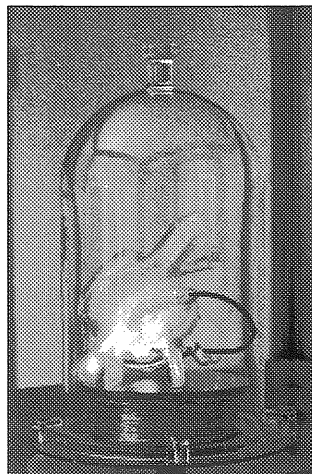
Left: The terella from
Charged Hearts.

Right: Image of the phosphorescent glass heart from *Charged Hearts.*

Framing Intermedia

by Paul Hertz

Clockwise from right:
Diagram A; General view of
Pond; Close up view of
modular sculpture for Pond;
Gallery visitors triggering
video and audio events
through the Pond interface

Two ideas underpin the work I have done over the last twenty years: the simultaneous composition of visual and sound events and the participation of other people in my creative process. In my pre-cyber days I worked with theatrical performers and musicians. Now computers and networks let me control streams of sounds and images and involve other people in the process of creating art. Recently I have found a third concern: the rupture of purely formal art by elements that expose cultural conflicts. Some of my computer work, including my collaboration on Antoni Muntadas's *The File Room,* focused directly on issues of censorship and colonialism. In my recent "Deadpan" series, I began to bring this socially critical impulse into the formal realm of my earlier work by developing compositional techniques that turn abstract elements into frames for representational or symbolic elements. Considering that the geometric tiling patterns I use in many of my compositions originated as abstracted frames (a rectangular hole inside a rectangle), this seems oddly appropriate.

A recent installation, *Pond* (exhibited at the Chicago Cultural Center for ISEA97, September 1997) brought together several different processes to explore the ways in which human presence and meaning can filter back into formal systems. In the year preceding the installation I asked participants to play a game to generate patterns that can be used as geometric tiles or as material for music composition. I digitized the image and voice of each partic-

ipant speaking his or her name. Patterns, images, and voices all became part of a computer database. The gallery floor was covered with a 10 x 10-foot modular floor sculpture recreating a transformation of one of the patterns with pine slats on a black-enameled support. Computer video projection onto an angled screen placed to reflect off of the sculpture played back the patterns, images, and voices in the database. Playback of sounds and images followed rules based on the patterns, changing tempo, pitch, transparency, etc. Visitors to the gallery could trigger and control the playback by waving their hands over Lucite rods equipped with photosensors. Material collected in each iteration of this installation can be used for the next one, transporting images, sounds, and patterns generated by one group of people into a space viewed by a distinct group.

Diagram A shows part of the parametric space used in *Pond.* The pitch class names (A, A#, B, etc.) in the circular nodes here represent MIDI events rather than actual notes in a diatonic scale. Notes in triangles correspond to percussive, consonantal sounds; notes in trapezoids to pitched, sustained vowel sounds, and notes in "sphinx" shapes to complex, syllabic sounds. Bracketed triplets of numbers represent raw parameters that can be applied to a composition: they could, for example, represent combinations of hue, value and texture in a painting or pitch,

Ylem Calendar

Some calendar items are reprinted from *Art Calendar* (the monthly marketing and career management journal for artists, P.O. Box 199, Upper Fairmont, MD; Subscriptions $32/yr), *Artweek, Leonardo Electronic Almanac, Artech* (<artstech@thecity.sfsu.edu>), and *FineArts Forum Online* (<paulbrown@siggraph.org>). We cannot verify all information sent to us. Readers, inform us of incorrect information please.

All events and exhibits are in the San Francisco Bay Area except where noted.

We want your announcements! To insure that they appear in the next newsletter, send 6 weeks before publication date. Announcements may be e-mailed to Lewis Bangham at <Banghaml@hotmail.com>. Also send notices to the Ylem website where they can appear on shorter notice. (Addresses on back cover)

Ylem Forums are *usually* held at the Exploratorium in odd-numbered months, but please read Forum announcements carefully— the format is changing! Please check the **exact** date of upcoming Forums here or on the website at <*www.ylem.org*>.

Ylem Notices

Wednesday, Jan. 6, 7:30 pm

Ylem Forum

Visual Thinking is from Venus, Linear Thinking is from Mars

MacBean Theater, The Exploratorium
3601 Lyon St., San Francisco
See Page 2 for more details.

Saturday, Jan. 6, 3:00 pm

Ylem Tour of the Tech Museum

Let's have a bite together afterwards!

See Page 2 for more details.

Events

Jan. 18–22

Imagina 99

Conference and exhibition in Monaco and Paris for computer graphics, 2d/3d animation, interactive television, special effects, the internet, virtual reality. A kind of SIGGRAPH Europe. Features the Prix Pixel.

For more info contact:
Imagina; BP 300; MC98006 Monaco Cedex
Tel: +337 93 15 93 94; Fax: +337 93 15 93 95
E-mail <ortech@easynet.fr>

Jan. 23,1-5pm

"Spiritual Consciousness through Computer Imagery."

Workshop: $30.00 Open up to the power of computer imagery inspired by meditation. Through computer demonstrations and slide presentations, participants will development their own spiritual vision through paper collage visual journals.

For more information call: Margaret Astrid Phanes, (831) 457-1793. East West Bookshop: (650) 988-9884 Email: <phanes@cats.ucsc.edu> (checked more often for daily email); <phanes@sj.znet.com> (associated with web site). Web address: <http://sj.znet.com/~phanes/>

Exhibits

Jan. 16–Feb. 27, 1999
Opening Reception: Jan 16, 7:30 pm

Digital Visions

Digital Visions by **Margaret Astrid Phanes** an exhibition of computer art work. "My digital imagery expresses the inner experiences of meditation. I use symbolic and abstract forms to represent an integral reality. My work uses computer imagery as a consciousness tool."

East West Bookshop Art Gallery: 324 Castro St., Mountain View

Jan. 8–30

THEM

An exhibition of artists, scientists, and designers concerned with the entomological universe. Curated by Gary Brewer. The exhibition features work in robotics and AI as well as other media.

At SomArts gallery: 934 Brannan St.; San Francisco, CA. (415) 552-2131

Planet Manson

Jacques Boyreau and executive producer Scott Moffett, the chairman of *Massacre at Central Hi* (the company behind "Boyreau's Hippy porn," "Hollywood Shrapnel" and the definitive whitesploitation "In") have finished the best film shot in San Francisco since "Bullitt". This one is called "Planet Manson."

At the Werepad: 2430 3rd St., San Francisco. (415) 824-7334 <werepad@werepad.com>

8

Ongoing

The Tech Museum of Innovation

Not to be confused with Arttech, "The Tech" has moved to a new location. The new museum has four theme galleries, a traveling exhibit called "Center of the Edge", the Hackworth IMAX dome, and online exhibits. The IMAX dome theater is the only one to feature *Everest*, the epic that takes viewers to the top of Mount Everest.

The Tech is located at: 201 South Market; San Jose, CA. For more info contact: <http://www.the tech.org>

Dec. 4th–31st

James Buckhouse "Landscape Interface" Paintings + Video

⑨

The show consists of paintings, video transmitters, and a hand held television carried by the viewer. Each transmitter creates a small broadcast zone in a different part of the gallery. The TV changes signals as it is carried between broadcast zones. The viewer moves through the gallery to change both his or her view of the paintings and the video signal on the TV. The visual result is a combination of a video figure with a painted ground. The gallery becomes an interface for the embedded video text of the painting exhibition. Both work as a topographical system for information distribution.

The Mill and Short Gallery 555 Sutter Street, Suite 401 San Francisco, CA 94102

Dec. 9–12, 15–19

The Kitchen

Design and visual concept by Robert Wilson & Music by Philip Glass.

Not bound by the physical limitations of human performers or real-world settings, Wilson's singular designs unfold as dazzling three-dimensional, computer-animated images projected in large format 70mm film. The special effects team behind the visually innovative film *Stargate* conjures a surreal Wilsonian dreamscape powered by Silicon Graphics supercomputers. The libretto, sung in English, is based on the spiritual poetry of the 13th century Persian mystic Jelaluddin Rumi, the original whirling dervish, and is here transformed by Glass into intoxicating love songs performed live by the Philip Glass Ensemble with vocal soloists.

BAM Opera House 30 Lafayette Avenue, Brooklyn. (718) 636-4100. For more info: <http://www.extremetaste.com>. The Kitchen, 512 West 19th Street, NYC. <http://www.panix.com/~kitchen>

Through Dec. 23rd

Member Exhibit in NYC

Marcia Lyons solo exhibition at the Alexandre de Folin Gallery. The artist scans her skin and voice into computer programs and produces what seem to be new life forms!

Alexandre de Folin Gallery 529 W. 20th Street, NYC (212) 242-3434.

Through Jan. 14, 1999

Memory

A collection of exhibits at the Exploratorium explore what we mean by "memory." The exhibition is grouped into six broad areas relating to personal, cultural, psychological, and neural perspectives.

For more info contact Linda Dackman: (415) 563-7337. The Exploratorium: 3601 Lyon Street, San Francisco, CA 94123. E-mail <pubinfo@exploratorium.edu>; <http://www.exploratorium.edu/>

Opportunities

ART-TECH

The Silicon Valley institute of art and technology is currently looking for artists using current and emerging technologies in their work: digital photography, electronic art, interactive installations, robotics, etc. We encourage new media artists to contact us and submit their resumes and portfolios to be considered for future exhibitions.

Address: 89 S. First Street, San Jose, CA 95113 Telephone: (408) 971-9100 Fax: (408) 971-9191 E-mail: <SVIArttec@aol.com>

Ongoing

On-line Magazine seeks quality art inspired by or about Global trends and their impact on people. Published artists receive free membership and published biographical web page.

For more info send SASE to Trend Magazine; P.O. Box 548, Carnation, WA 989014 or <www.trendmag.com> or e-mail <Joel_ohringer@msn.com>

Deadline: Feb. 1, 1999

Teaching Position: Animation/3D Visualization.

Full-time, tenure-track, rank open. The School of the Art Institute of Chicago seeks practicing artist to teach and help expand animation courses in art & technology and filmmaking. Animator-filmmakers, 3D animators, and real-time 3D Visualization artists are encouraged to apply. Ability to work with beginning and advanced students. School's open curriculum nurtures experimentation and interdisciplinary work in art & technology, film, video, sound, painting, sculpture, etc. AA. EOE. WMA.

Send letter of application; resume; statement of teaching philosophy; sample of work; names/addresses of 3 references and self-addressed, stamped to: Animation Search Committee/em3, SAIC; Dean's Office; 37 South Wabash; Chicago, IL 60603.

Deadline: Jan. 22, 1999

Position available: Assistant Professor; Tenure Track Conceptual/Information Arts

Focuses on contemporary art explorations in non traditional media that integrate the information bases, work styles, and perspectives of disciplines outside the arts, especially those involving science and technology. Teach beginning, advanced, and graduate levels of Conceptual/Information Arts courses and tutorials. Terminal degree and exceptional performance

in the arts required. Practicing artist/teacher with significant exhibition record of works relating to the above concerns. Three or more years of teaching experience preferred. Functional computer literacy. Art work and teaching record must show ability to teach courses related to contemporary technology and structured processes.

Send letter of application, slides and other documentation, three letters of recommendation, and self-addressed stamped envelope for return of slides and other documentation to: Chair, Conceptual/ Information Arts Search Committee; Art Department, San Francisco State University 1600 Holloway Avenue San Francisco, CA 94132. Information about the program available at <http:// userwww.sfsu.edu/~infoarts>.

Video Artists

ThunderGulch is looking for original video works that would be considered more "ambient", or "abstract" in nature rather than narrative, documentary. This is for a project with ARK restaurants.

Contact Cynthia at ASCI first. If she is not familiar with your work, send a 10min. tape to: ASCI, PO Box 358, Staten Island, NY 10301. Artists will be paid a fee, to be determined.

Deadline: Jan. 15, 1999

Project Leader— Volcano Project Leader at Poole Arts Centre in UK.

A freelance Project Leader is required to manage and develop the programme on behalf of Poole Arts

Centre. The programme, which will focus on photography and new media/digital technology, will pilot a new direction for Poole Arts Centre, and for arts and community development across the borough of Poole. $1,000 GBP/mo. for 3days/week; a three-year project.

<philip.smith@southernarts. co.uk>. Web pages: <http://www.arts.org.uk>

Director needed

Vivid, Birmingham's Centre for Media Arts, UK is looking for a Director with the skills to develop creative opportunities in the digital & media arts & cultural industries. The Director is responsible for strategic and creative development.

<vivid@waverider.co.uk> (Andy Robinson)

Deadline: Jan. 15

"Artists & Communities: America Creates for the Millennium"

Residencies are available in all 50 states and 6 jurisdictions throughout the year 2000. Projects will present creative approaches to issues relating to values, families, health, cultural diversity, and community. Artists from all disciplines including choreographers, composers, poets, writers, painters, sculptors, filmmakers and other visual artists will show the power of the arts to effect positive responses to community issues. Applicants should be professional artists with experience in leading community arts projects, who have achieved recognition in their chosen discipline or in the community arts

field. They must be U.S. citizens or permanent residents, willing and available to travel to another state in the U.S. for at least 3 months during the year 2000.

Millennium Artists will receive national recognition, professional level honorarium, travel and accommodation expenses, resources and facilities to create new work with community participants, and lasting documentation of their project and the program as a whole.

For an application call: 1 (800) 697-0143.

May 1–15, 1999

Call for Works... EVENTSWORKS AT THE BOSTON CYBERARTS FESTIVAL

If your work deals in the cyberarts and new technology in either form or content, and is a performance or event, you can apply to be a part of Eventworks during the Boston Cyberarts Festival. The Boston Cyberarts Festival is happening, and takes place at arts organizations and venues throughout the Massachusetts area.

For more info about the Festival, <http://www. bostoncyberarts.org>, or email <cyberfest@world.std. com>. Submission guidelines: <ventworks@massart.edu>

January–March

Lunar/Meteorite Course

Educators need to be certified by NASA representative in order to borrow the Lunar and/or Meteorite disks. The Ames Educator Resource center is offering three certification courses January 23, February 20, and March 20 from 10:30am to 12:00pm to certify educators in northern California.

To register for the certification class call (650) 604-3574 to obtain an enrollment form.

New Music

Klub Karma is a space for semi-sporadic gatherings for those interested in sharing new music. Klub Karma involves rather informal concerts and/or very informal presentations about music and related artistic areas. We have started Klub Karma last year as a local event and decided to open it to everybody from this year on.

For more information about Klub Karma visit: <http://www-ccrma.stanford. edu/CCRMA/Events/Klub.html>. Or get on the list: <juan@ccrma.stanford.edu>

Convert scans

This is a good site for a quick overview of turning CT-scan images into 3D sculpture.

<http://www.grad.uiuc.edu/ departments/ATAM/imaging. html>

Jim Pomeroy retrospective

Ed Tannenbaum is currently developing a web site with New Langton Arts as a retrospective for the late, great, Jim Pomeroy. They hope to get contributions from friends, his students, and institutions to add to the site. Ed is hoping fellow Ylem members might be able to help. Stories, artworks, etc. are welcome for submission.

The URL is: <www. jimpomeroy.com>. More info is available at the site... but watch your heads. Respond to: Ed Tannenbaum <et@et-arts.com>. <www.et-arts.com>

Apropo

The Boston Cyberarts Festival is pleased to announce Apropo (Artist Proposal Database) on the Boston Cyberarts Festival Website. Apropo is a place where artists can post information about themselves and their projects, and find possible collaborators. In addition, the Boston Cyberarts Festival offers it as a resource for arts organizations and venues to look for artists who work in the cyberarts.

<http://www.ragesystems. com/cyberarts/artists.nsf=2>

Health Insurance

Health Care Insurance for artists. Major medical coverage, HMO, PPO options, first dollar emergency care options.

Olde Economie Risk Management 511 State Street, Baden PA 15005

Museum for Installations

The MATTRESS FACTORY, Pittsburgh, PA is a museum of contemporary art that commissions, exhibits, and collects site-specific installations—one of the few museums of this specialty.

(412) 231-3169; <info@mattress.org>

Soho East... Creative Vacations In New York City @ A's

As you're passing through Manhattan and need a space for a few weeks—a few nights—A's is the place 2B! An Expansive Artist Loft Space in Manhattan. 20 Share Kitchen & Bath & BBQ'S. Great for European travelers! $50 per night per person. Smoking in outdoor sculpture garden only.

For more info, voice: (212) 431-9464, fax: (212) 343-1590. Email <atel@panix.com> (718) 816-9796; <pannucci@asci.org> PO Box 358, Staten Island NY 10301 URL: <http://www.asci.org>

⑪
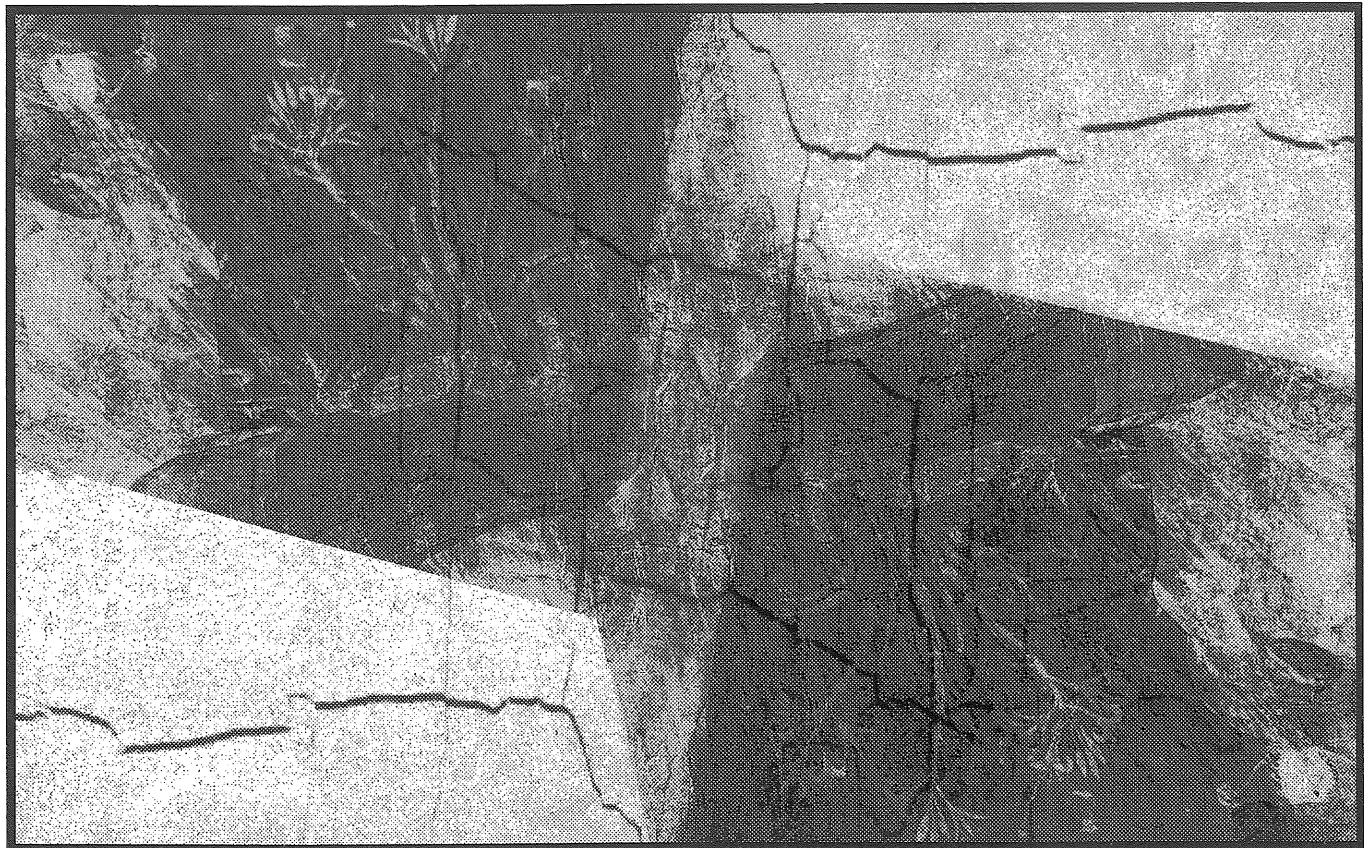
Endless Sleep, by Marius Johnston. Digital file, 1998. Occasionally the Ylem Newsletter has space for members' images. If you have an image you would like us to use, please write Marius Johnston at *<mariusj@best.com>* for further information.

Thresholds
by Marlena Novak

Initially, I had envisioned and discussed the following basic format to guide our collaboration: in order to begin, we would each create one piece based on our concept of the Threshold experience. That piece would then be responded to by each of the participants. This response could be manifested in various ways, which would be determined by the collaborator's medium and to some extent by the piece itself. I saw this as a method of initiating the project which would then be open to develop in its own organic form as the process of collaborating evolved.

With this in mind I created the first video piece, *Broken Symmetry*, exploring my concerns with perception. I worked with personal systems which included using golden proportions both dimensionally and temporally. by M. Stone-Richard (MSR) provided both Frances-Marie Uitti (FMU) and myself with a number of prose-poems which he had previously written for his personal project confronting threshold experience. I took material from two of these poems to create the other two videos.

The second video was my response to MSR's poem, *Fade Away...* The piece began with fragments of cello and voice improvised over the first 55 seconds of the video. I selected, what was for me, the most evocative phrase and stanza of the poem, which included the phrase: "fade away the abstract music of charm." I focused on the appearance, the sound and the content of the words in his phrase in order to choose the colors, font, compositional design and movement through time/space. In *Fade Away... Part 2* I selected an entire stanza. I initially began to deconstruct the text visually by having portions of the text move in opposing directions, changing the appearance and ultimately the content of the words. As I was developing this part of the piece I showed the footage to
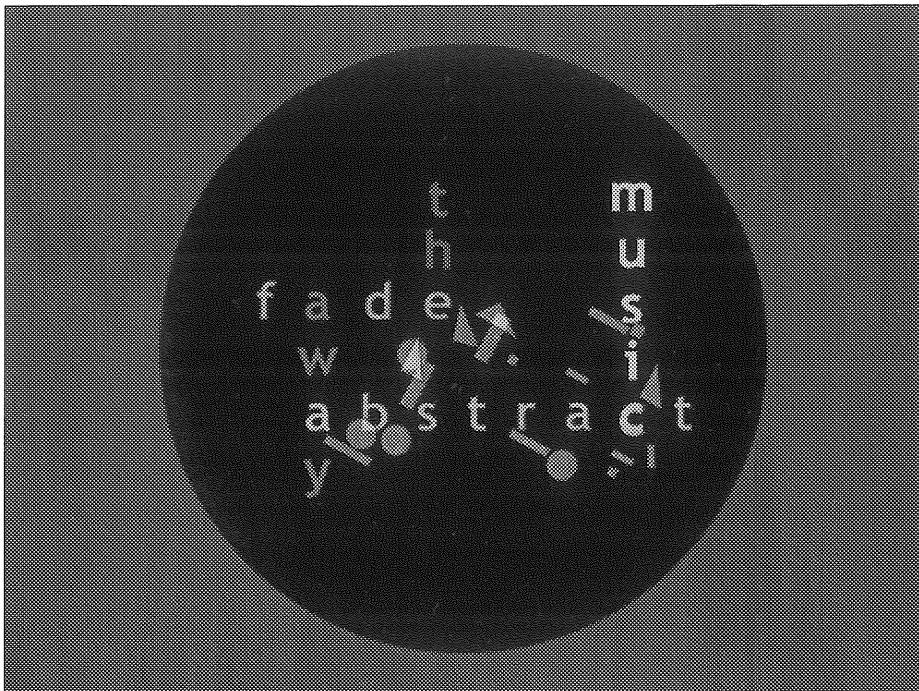
Still image from *Fade Away... Part 2*

⑫

FMU. Uitti said that she was inspired by this idea and asked me if I would not mind having her deconstruct the text with her own voice instead. She then took a recording of MSR's voice and created a digitally manipulated text-collage, isolating selected fragments and phonemes from MSR's original recording combined with superimposed new material which she created. She performed live on top of the pre-recorded material. My treatment of the stanza then focused on reinstalling the text from the live performance. Although I used the stanza in its entirety, I altered the initial reading (and therefore, content) by introducing the phrases in a sequence which differed from MSR's original. Through color, font and timing choice, I had hoped to stimulate the private imagination of the viewers by ending the piece with the repetition of the phrase: "the day an impossible wish".

For the final video, *Water was Light,* I selected the phrase, "For an instant water was light" from one of MSR's poems. I responded to this phrase on several levels. First I created a numerical system based on the phrase and used this to determine the hues used and the number and location of the square blocks. In conjunction with the content of another poem in his series—which draws significantly on historical events that took place in New Mexico—I scanned one of my own photographs of a river in New Mexico to use for the rotating water texture in the

Creating a Visual Translation of
Kurt Schwitters' *Ursonate*

by Jack Ox

During the fall of 1990 I began active research on a series of paintings which became a visual translation of Kurt Schwitters' *Ursonate*. I have a long history of this kind of activity. However, before it was with compositions that were written in a more strictly musical language (Gregorian chants and works by Bruckner, Debussy, Stravinsky and Bach). The *Ursonate* is somewhere between spoken language and music.
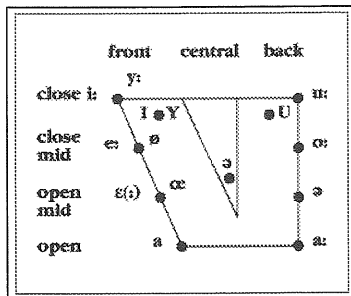
At the Phonetic Institute, University of Cologne, under Georg Heike, I made, with the patient and generous help of Angela Fuster-Duran, a complete phonetic analysis (translating Schwitters' recitation into real phonemes).

Diagram of the vowel symbols used in the transcription of the Ursonate. The symbol to the right of the dot represents a rounded vowel; the symbol to the left represents an unrounded vowel.

(13)

All of this information is encoded in the painting through collage image manipulation (intonation, consonants, and syllabic construction) and glazes (vowels).

The images I use as the vocabulary for my performance in painting come from several sources: the Merzbau, which was a living, growing environmental construction built in Hanover, Germany (started in 1923, destroyed 1943); the Merzbarn Schwitters began to construct at "Cylinders," near Ambleside, England, in 1947; his small hut on a tiny island off the coast of Molde in Norway; and the landscapes in both Norway and England in which he spent so much time and even painted. Each theme in the *Ursonate* has its own image.

I superimposed a set of vertically drawn lines over these "image themes" in order to delineate each syllable. Where the image is taken from (upper or lower parts of the vertical column) is determined by the pitch level at which the syllable is spoken at that particular point in the score. The amount of image used on the horizontal plane is determined by the dynamic (loudness) level at that particular point. If a syllable is loud, its scale is greater, with less image filling a particular amount of space. If it is spoken relatively softly, the image is a smaller scale, therefore using more of the original theme image. However,
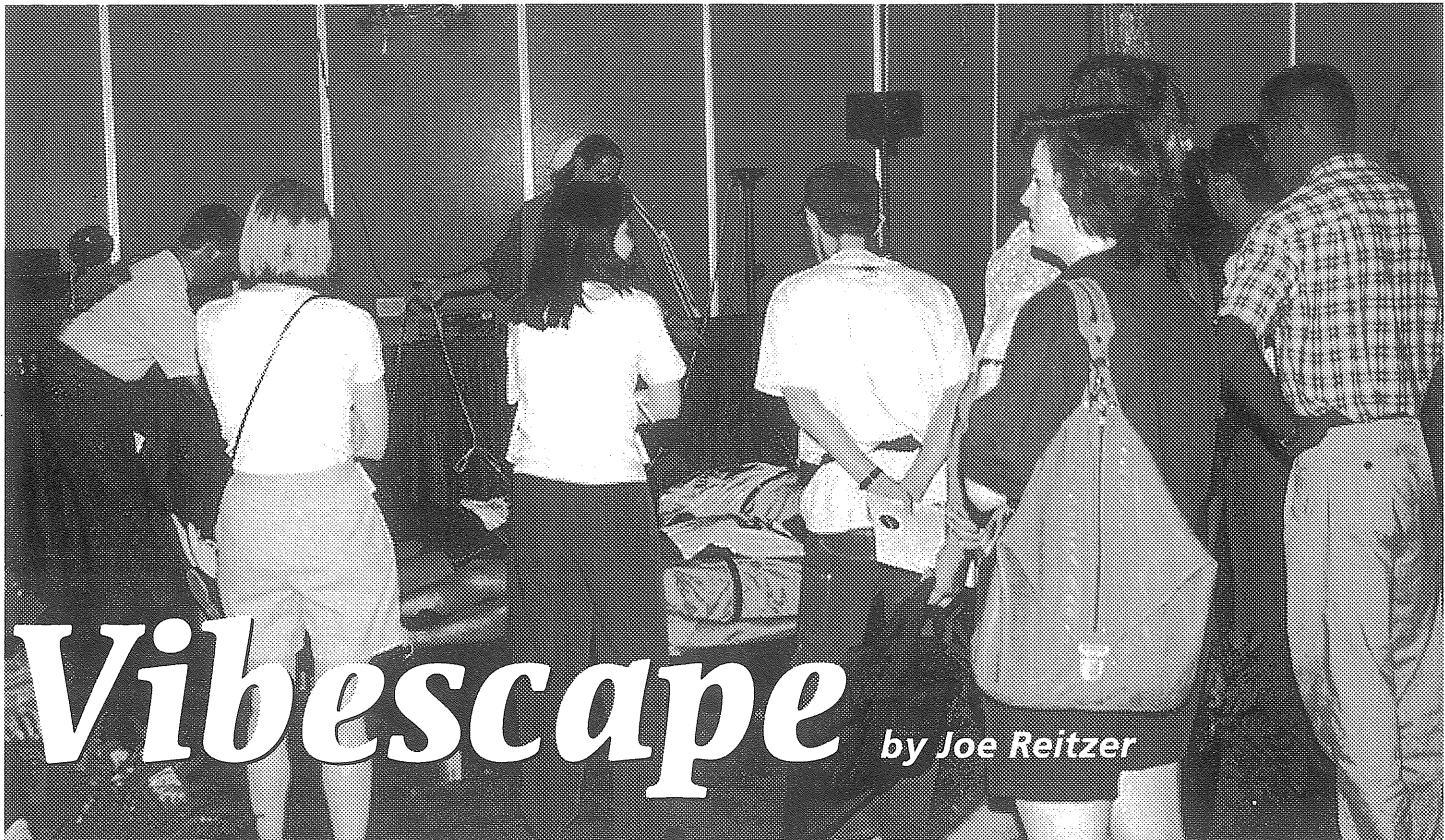
Jack Ox, Ursonate, oil-painted image on Mylar using Xeroxed underdrawings. 30 cm x 200 m. The image shows the Ox's translation of the Fourth Movement of Kurt Schwitters's Ursonate, constructed according to musical and phonetic information taken from Schwitters's original performance.

Vibescape
by Joe Reitzer

How was music originally defined? Was it a tool of communication, a way to warn of imminent danger, or was it a means for spiritual communication to the gods? How did the notion of musical scales evolve and prevail? Which came first, the voice of the instrument or the language of music? Where did the pre-determination of instruments come from? Was it happenstance? Does music language pre-determine the evolution of instrument design? Or does technology control its innovation? All of these questions are part of the overall process that goes into the making of any instrument, real or virtual.

The piano has 88 notes on its keyboard and can be a difficult instrument to play. One can take years of practicing and interaction to finally create one's personal signature upon the instrument. Like any instrument, a virtual instrument is difficult too. VR instruments also must be learned and practiced. When constructing or programming a real or virtual instrument, its construction determines the way the instrument is used or performed. Out of this process a new language is created which allows the complete immersion of the artist with the instrument to a degree whereby the instrument becomes invisible and the final outcome is the language of sound and music. In VR the unknown variable is the human. The CAVE interface is ideal for the creation and performance of instruments and/or orchestras yet to be designed.

Vibescape uses digital sound samples as the basic foundation of composition. A sound sample is nothing more than a pre-determined sound that has been tuned, manipulated, and constrained to fit the needs of the application, i.e. instrument, just as the fixed length and tuning of strings on any stringed instrument are constrained to perform to the designed acoustics of that instrument. *Vibescape* uses three dimensional placement and spatial considerations of digital sound samples to determine human interaction. This allows the participant/performer to be able to create compositions and soundscapes using large sound samples as a real time musical instrument. When designing a VR audio instrument, not only does spatial placement determine the performance characteristics, but also the behaviors of one or a whole group of samples become part of the design for the type of performance mechanism. As with any software code, pre-determination is an evolutionary process bypassing the traditional reality-based instrument design and execution. As with any instrument, composition/performance is tied to the musicianship of each individual performer. Instrument design based upon practiced performance may deem necessary changes, allowing the instrument/software to mature with the artists and the technology.

Vibescape has unlimited potential for utilizing large and numerous digital sound samples and also 3D interactive computer graphics. *Vibescape* has the ability for musical and non-musical people to create and explore soundscapes in both the aural and tactile realms. *Vibescape* provides tactile sound (sound you can feel) in an immersive setting by vibrating every molecule and cell in the body. This is a genuine intuitive experience that revitalizes each individual and evokes feelings of excitement. There is also a breakdown of some social inhibitions. The use of *Vibescape* in combination with physical therapies can open new research into these areas of wellness and balance.

Music and sound in the virtual realm transcend both the real and the virtual. What is virtual leaves an imprint in the real. *Vibescape* attempts to be that portal.

<reitzer@evl.uic.edu>

Ox: Schwitters' *Ursonate*

whenever a particular syllable is spoken, it always comes from the same image column.

All vocalic information is expressed through the glazing system that was used for harmonic movement and qualities in the musical paintings. The 16 vowel sounds from the German language are arranged in a logical chart that visually shows how and where they are produced in the oral cavity. I created a color chart that corresponds to this vowel chart.

Unrounded vowels come from the warm list of colors on the left side of my color chart, while rounded vowels come from the cool list on the right side. Vowels made with the tongue in a high position are warmer than vowels made with a low position. Vowels produced at the front of the mouth are a pure hue. As the location of production moves backward, there is an ever-increasing percentage of a complimentary hue, which is glazed in a separate layer. Diphthongs slide between two colors as the sounds slide between two vowels. Consonants are realized through internal image manipulations. The manner of articulation (e.g. plosive, fricative, trill) can be seen in different cuts and/or separate color inserts, and the turning of image segments. Voiced consonants are distinguished from voiceless ones by the opposing direction of cuts.

The rhythm of the *Ursonate* is easily discernible by an equivalence of space and time relationships. Because it consists of only one line, I felt that the pauses between spoken fragments were very important to the rhythmic feeling. Therefore, I have used solid blocks of various cadmium colors, moving from a cadmium citron yellow for the shortest breaths to a cadmium deep red for the longest breaks. The first movement of the sonata is about 430 ft or 130 m wide by 12 in or 30 cm high. There are only seven images appearing in this enormous distance and so it is obvious that the same images have been painted many times. Using the large-format machine from Xerox Engineering Systems I was able to print the syllabic units of the image-themes in their proper image height for pitch, in different scales for dynamic changes, over and over onto the *polyesterfolie* [ed. note: German for Mylar] upon which I painted. When the same image is painted many times, the body of the painter begins to move in specific ways. Painting them becomes an activity similar to playing a musical instrument, repeating passages with the kind of variations a musician's body can give.

<jackox@bway.net>

Hertz: Framing Intermedia

dynamics and envelope for a sound. Edges connecting nodes represent transition probabilities-only certain sequences of sounds are possible. Durations associated with nodes and some edges can be used to produce rhythmic sequences. In the installation, the parametric space is "explored" by four software agents that travel from node to node generating events. The agents tend to be fairly quiet until human presence (a shadow crossing over the photosensors) disturbs them. Activation of the photosensors makes the digitized images of the participants appear on the projection screen. Different combinations of images trigger complex chains of events, miniature compositions. The photosensors provide a modest amount of control within the structured randomness of the events: visitors often treated the installation as a digital drum kit, rhythmically waving their hands. I was pleased to see that the installation could be approached in this spontaneous way.

Essentially, the edges and nodes in Diagram A have been constructed by treating a geometric pattern as a map from which a dual graph may be determined. While maps and graphs are topologically isomorphic, I am less interested in such mathematical equivalencies than in creating an abstract space of parametric values that can work both as raw material and as a decision-making engine. The goal is not a synesthetic composition dominated by isomorphic structures in different modalities, nor a self-contained aesthetic structure, but the free play of different media within a set of common rules. Structural relations between modalities range from isomorphism to complete independence. The relations (isomorphism, complementarity, intersection, association, independence) used in each complex of events can also be treated as parameters within the compositional process. Within such open rules, you can compose for multiple modalities and still allow each medium the freedom to assume its particular qualities. You can admit new formal, symbolic, and representational material. The parametric space simply serves as a scaffold on which to hang framing devices (geometric figures, durations, etc.) that contain events. I would like to think that such a method of composition satisfies both the intellectual challenge of formal investigation and the urgent impulse to communicate ideas.

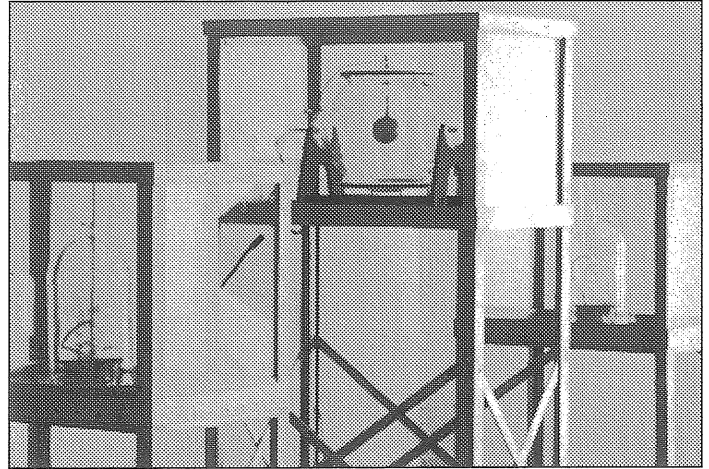Documentation on *Pond* (including a QuickTime movie of the installation) and other works can be found at *<http://www.nwu.edu/people/paul-hertz>*.

<paul-hertz@nwu.edu>

Richards: Body Boundaries

This is a site-specific work. It plays with the prescribed behavior which is the norm of museum and gallery spaces: "Do Not Touch." Spectators transgress three times, by first stepping on the glass floor, then by reaching into the cabinet and then picking up the bell jar with the glass heart. By stepping up on the glass the spectators are on display. By entering the cabinet they have crossed the boundary separating themselves from the artist's work. By picking up the object they plug in, triggering an electromagnetic field which excites the glass hearts.

The 'real' object in this piece is electromagnetic activity and its play between the material and virtual. The hearts and the terrella (a cathode tube stripped bare) are containers for these electrons. They are windows which frame the activity. They contain gases, which become phosphorescent when electrons are excited by the participation of the spectator. In this way the 'virtual environment' becomes material and our own part in this environment is tangible.

There are two glass hearts in two glass bell jars. Pick up the heart and a shadowy heart forms in phosphorescent gases. Once someone else holds the twin object, they, too, will soon find their electron heart transported. Hearts are charged both literally and figuratively. In the slippery electromagnetic world we can say that the hearts excite and mean that the electrons are firing as much as we mean that our hearts are moved.
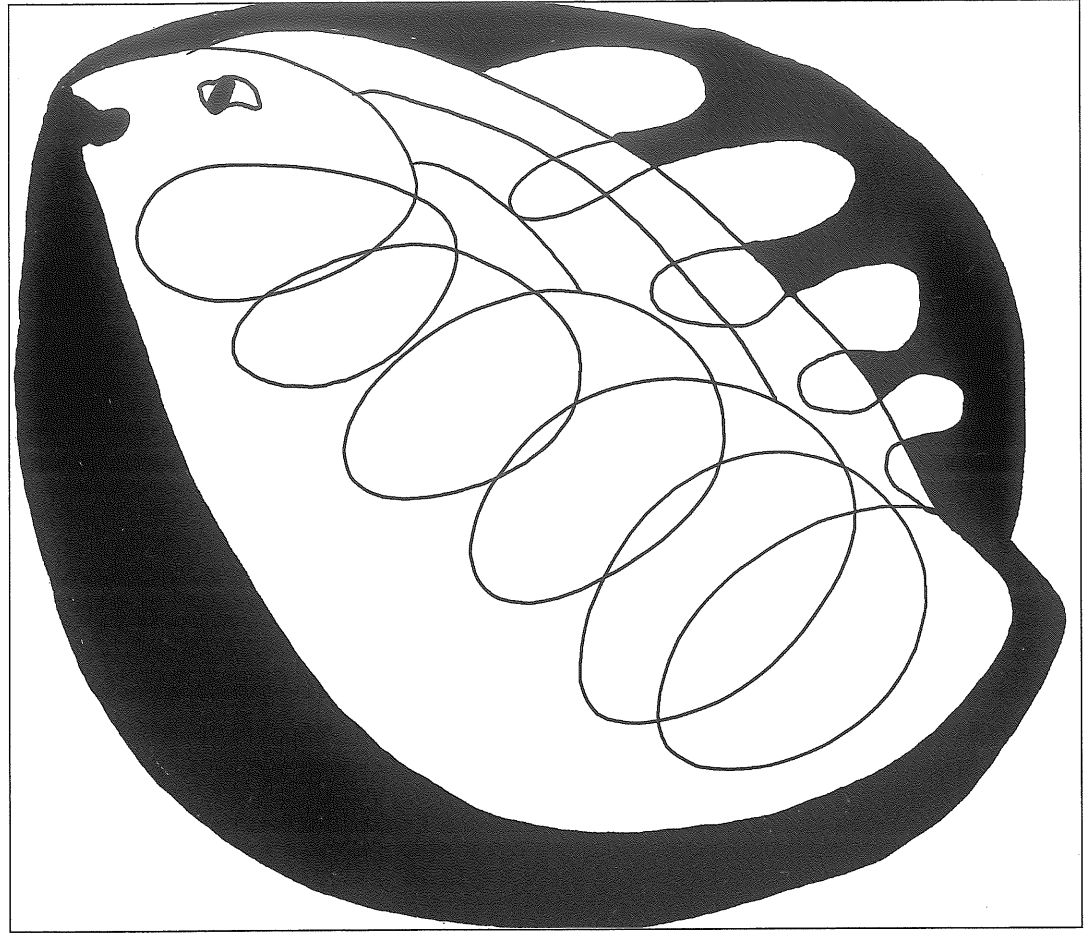
Novak:
Thresholds

video. I also conceptualized the 'instant' by experimenting with the number of frames needed to allow the viewer to perceive an image and superimposed these flashes as a visual counterpoint to the other material in the video. In addition, I took one of the musical compositions that FMU made in response to *Broken Symmetry* and created a numerical system based on what I considered to be significant instances in her piece. I then incorporated this information into a portion of *Water was Light*; this, in turn, inspired my compositional completion of the piece.

MSR composed two poems as part of his collaboration, which he read during the performance; he relayed that one was inspired by the music of FMU, and one was inspired by my encaustic work. Both FMU and I created completely new work for this project.

<jaymar@nwu.edu>

Above: A general view of *Charged Hearts*.
Below: A close shot of the *Cabinet of Curiosities*.

Above: *Birdfish,* by Eleanor Kent.
Bitmap image drawn freehand
with Adobe Photoshop 3.0 and
Wacom pen/tablet, 1998.

Right: *2 for T.C.C.,*
by Sarah Jackson.
No Date.
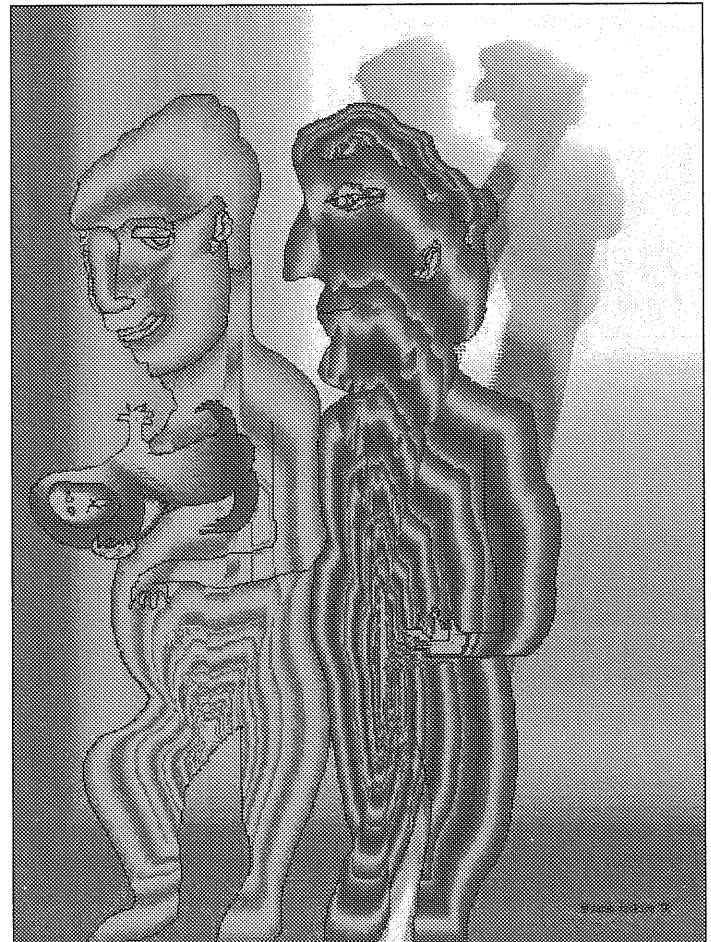
Member
Art Gallery

Occasionally the Ylem Newsletter has space for members' images.
If you have an image you would like us to use, please write
Marius Johnston at *<mariusj@best.com>* for further information.

Ylem Yearly Membership includes:

Members Directory
An annual publication in which you are listed along with approximately 250 other artists of new art forms.

Newsletters
The bi-monthly Ylem Newsletter contains articles on numerous topics along with news of members, a calendar of events and art opportunities.

Forums
Ylem presents bi-monthly Forums at San Francisco's Exploratorium, curates art shows, and arranges special site visits.

Ylem Slide Registry
An opportunity to join our Members' slide registry. The registry is presented to curators by the Ylem Exhibits Committee. An initial fee of $15.00 ($5.00 annual renewal) is charged to cover the preparation of professional-level presentations.

Electronic Membership Option
On-line members receive their Directory and Newsletters via the Internet (paperless).

Ylem's Gallery on the World Wide Web
An opportunity to exhibit your work in our Web site. Visit *Art on the Edge* at <http://www.ylem.org>.

YLEM 1996-97 DIRECTORY
Available to members $6; non-members $15. Make check payable to Ylem (memo: Directory).

Send to:
Ylem Directory
672 Prentiss
San Francisco, CA
94110
USA

---

(18)

○ Please **send a sample newsletter** to (me) (my friends) at: (complete below)
○ Please **process my membership** today. Complete below and specify:

Amount: $ _____.00   Type of Ylem *Membership* _____

Yearly Membership Rates:

($30) U.S. INDIVIDUAL

($45) U.S. INSTITUTION

($20) U.S. STUDENT/SENIOR

($20) ELECTRONIC NEWSLETTER

● *Canada & Mexico: add $5 to US rates.*
● *All other countries: add $15 to US rates.*
● *US Currency only.*

Name: _____

Business Name: _____

Address _____

_____

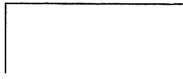Phone: (H) _____ (W) _____

Fax: _____ E-mail: _____

URL Address _____

Interests _____

_____

Send to: Ylem; *P.O. Box 749; Orinda, CA 94563 USA*

YLEM is an international

n., pronounced eye-lum,

organization of artists, scientists, authors, curators, educators, and

1. a Greek word for the

art enthusiasts who explore the intersection of the arts and

sciences. Science and technology are driving forces in contemporary

exploding mass from which

culture. Ylem members strive to bring the humanizing and unifying

the universe emerged.

forces of art to this arena. Ylem members work in new art media such

as Computers, Kinetic Sculpture, Interactive Multimedia, Holograms,

Robotics, 3-D Media, Film, and Video.

Ylem
P.O. Box 749
Orinda, CA 94563
USA

Contact Information

Ylem Main Office
P.O. Box 749
Orinda, CA 94563
<beverly@idiom.com>

Ylem Newsletter Items
Trudy Myrrh Reagan
967 Moreno Avenue
Palo Alto, CA 94303
<trudymyrrh@aol.com>

Ylem's Art On The Edge Website
Beverly Reiser
6979 Exeter Drive
Oakland, CA 94611
<http://www.ylem.org>
<beverly@idiom.com>

ADDRESS

CORRECTION

REQUESTED

RETURN

POSTAGE

GUARANTEED